

**REMARKS/ARGUMENTS**

Favorable reconsideration and allowance of the present patent application are respectfully requested in view of the foregoing amendments and the following remarks. New claims 42-50 are added in the foregoing amendment. Accordingly, claims 1-50 are pending in the application.

**Allowable Subject Matter**

Applicants note with appreciation the indication on page 10 of the Office Action that claims 10, 17, 26 and 40-41 are allowable.

**35 U.S.C. § 103 Rejections**

Claims 1-2, 4-9, 11-16, 22-23, 30-35, and 39 were rejected under 35 U.S.C. § 103 (a) as allegedly being unpatentable over Leslie et al., U.S. Patent No. 6,404,775 (hereinafter “Leslie”) in view of Judd et al., U.S. Pub. No. 2004/0110469 (hereinafter “Judd”).

Applicants respectfully traverse each of these rejections for at least the following reasons.

Independent claim 1 discloses, *inter alia*, a frequency translating repeater for use in a time division duplexing (TDD) radio protocol system, the frequency translating repeater including a detector circuit configured to detect if a signal is present on one of two frequency channels associated with the frequency translating repeater, and a delay circuit configured to add a delay to the signal to compensate for a signal detection interval, a gain adjustment interval and a transmitter configuration interval.

The Examiner admits that Leslie does not disclose or suggest the features of claim 1 of “a delay circuit configured to add a delay to the signal to compensate for a signal detection interval, a gain adjustment interval and a transmitter configuration interval,” but relies on Judd in an attempt to obviate this deficiency of Leslie.

Judd discloses a flat-panel repeater that includes a housing having a pair of oppositely

facing surfaces, an antenna element mounted to each of the surfaces, and an electronic circuit mounted within the housing and operatively coupling signals to the antenna element. As shown in FIG. 24, an input signal  $S(t)$  is received via an antenna 120. Afterwards, signal  $S(t)$  is bandpass filtered at 126a, amplified at 128, filtered again at 126b, and transmitted by an antenna 122. However, some of the transmitted signal energy is coupled back (through space, or through the electronics) into the receive antenna. This is denoted in FIG. 24 as the feedback signal,  $f(t)$ , which is simply a delayed version (attenuated) of the original signal,  $S(t)$ . Therefore, the composite signal,  $S(t)+f(t)$ , is fed into the amplifier, with output  $G(S(t)+f(t))$ . If the feedback signal is comparable in power to the original signal  $S(t)$ , then the amplifier 128 will go unstable, and oscillate (ring) resulting in severe distortion in the desired signal (See Judd, para. 0161). Therefore, the delay described in Judd is not configured to add a delay to the signal to compensate for either a signal detection interval, a gain adjustment interval and a transmitter configuration interval. Furthermore, the delay described in Judd is not desirable since it results in an unstable operation of amplifier 128 nor is it “added.” In fact, the feedback described by Judd is a phenomenon that cannot be prevented. Therefore, Judd does not disclose a delay circuit configured to add a delay to the signal to compensate for a signal detection interval, a gain adjustment interval and a transmitter configuration interval, as recited in claim 1. Applicants again respectfully request that the Examiner specifically point elements of Judd that teach the delay circuit.

As stated in MPEP § 2143, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the

reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

As noted above, the alleged combination of Leslie and Judd at least fails to teach or suggest all the claim limitations of claim 1. Independent claims 11, 15, 22, 30, 34 and 39 contain similar limitations as to independent claim 1, and for at least the same reasons as stated above for independent claim 1, claims 11, 15, 22, 30, 34 and 39 are patentable.

Claims 3, 18-21, 24-25, 27-29, 33, and 36-38 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Leslie and Judd in view of Zhang, U.S. Pat. No. 6,285,863. Applicants respectfully traverse these rejections for at least the following reasons.

Zhang discloses a system and method for providing automatic gain control (AGC) with high dynamic range. As shown in FIG. 2 of Zhang, an AGC system includes an open loop control system and a closed loop control system. The open control loop system senses the power level of an input signal and preprocesses the input signal based on its sensed power level. However, Zhang at least fails to disclose a delay circuit configured to add a delay to the signal to compensate for a signal detection interval, a gain adjustment interval and a transmitter configuration interval, as recited in claim 1.

Accordingly, even assuming *arguendo* that Leslie, Judd and Zhang were combined as suggested by the Examiner, any such combination still does not teach or suggest all of the claimed features. Further, the Examiner has provided no reason why it would have been obvious to modify any combination of Leslie, Judd and Zhang to yield the inventions of independent claims 1, 11, 15, 22, 30, 34 and 39. The remaining dependent claims are also allowable, since a dependent claim is non-obvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir.

1987).

Accordingly, Applicants respectfully request withdrawal of the foregoing rejections under 35 U.S.C. §103.

*New claims 42-50*

New claims 42-50 recite similar subject matter to the foregoing claims (see, e.g., claims 22-29). Accordingly, claims 42-50 are allowable over Leslie, Judd and Zhang for at least reasons similar to those provided in the foregoing arguments.

**CONCLUSION**

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, at the telephone number listed below.

**Deposit Account Authorization**

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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By   
Linda G. Gunderson, Ph.D.  
Reg. No. 46,341

QUALCOMM Incorporated  
Attn: Patent Department  
5775 Morehouse Drive  
San Diego, California 92121-1714  
Telephone: (858) 651-7351  
Facsimile: (858) 658-2502